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THE INSTITUTIONAL APPROACH TO ECONOMIC GROWTH

by

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FOREWORD

This working paper is part of a larger manuscript which we are preparing as the final report by NPA's Development Planning Project to the Agency for International Development. We eventually intend to publish a book from the material comprised in our final report.

For this reason we wish to give the reader some idea of the broader perspective which encompasses this present working paper. The larger study covers our empirical and theoretical work on the open, dualistic economy. In approaching this larger subject we begin by surveying the present state of the art in growth and development studies. This assists the reader in understanding our own growth philosophy and the evolution of our analytical framework.

Four chapters (of which the present working paper is one) are devoted to surveying four rather distinctive approaches to the study of growth and development. In addition to the "institutional approach"

discussed in this paper, we survey the planning approach, the historical approach, and the theoretical approach in other chapters. Our purpose in this advance circulation is to invite critical comments on any of the large number of issues discussed. We shall be grateful for any reactions the reader may wish to express.

Douglas S. Paauw
John C. H. Fei

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INTRODUCTION

The institutional approach to economic development embraces the work of a group of writers who emphasize the significance for development of many factors not within the traditional scope of modern economic analysis. Their viewpoint reflects the awareness that the economic system is a partial system which functions within a broader environment. This environment includes social, cultural, and political forces which may affect the growth performance of the economic system and which, moreover, are subject to change.

Representatives of this school differ in the particular facet of the environment which they emphasize as relevant for development. Although significant contributions have been made by such disciplines as anthropology, sociology, political science, and psychology, our brief review is confined to sample writings of economists who have linked "noneconomic factors" with the process of development. Our objectives are to provide some insight into the content and method of this school and to evaluate the significance of this knowledge in terms of our own study.

The perspective offered by the historical school provides a useful backdrop to understand the institutional school's contribution. We

have seen that the history of development is viewed as a process of comprehensive economic change proceeding from the traditional agrarian epoch through the colonial epoch to the ultimate epoch of modern economic growth. Between the latter epochs lies a transitional period during which the growth constraints of the traditional society, as perpetuated during the colonial epoch, are progressively dissolved, and conditions for modern economic growth emerge. The historical school interprets modern economic growth as characterized by the application of routinized and institutionalized scientific knowledge to raise the economy's productivity. It follows that the essential historical significance of the transitional period is the creation of the environmental conditions requisite for modern growth. The institutional school's contribution consists of enhancing our understanding of what environmental forces affect the critical innovational activities and how these new forces emerge.

1. ECONOMIC AGENTS IN A GROWTH FRAMEWORK

In order to stress the unique contribution of the institutional school in relationship to the other approaches reviewed (i.e., historical, planning, and theoretical), it is important to grasp the focal point of this school's analysis. A convenient way to approach this question is to recognize the development significance of the four categories of primary

factors of production--land, labor, capital, and entrepreneurship. In such a perspective, expansion of the economy's productivity is construed to be a direct outgrowth of quantitative and qualitative change in these primary factors. To understand the institutional approach, however, it is important to distinguish between the role of primary factors as productive inputs (in the engineering sense) and the associated role of economic agents--the human aspect--which guide, manage, and direct the use of productive inputs. It is this latter aspect of economic agents that is emphasized by the institutional approach because the social implications of the agent concept are much broader than the production input aspect.

In Table I we show, in the left-hand column, the four primary factors of production--land, labor, capital, and entrepreneurship. For each factor of production we identify three aspects of economic significance--as an agent, an asset, and a service--shown in Columns I, II, III. The asset aspect is a stock concept, existing at a given point in time while the service (or income) aspect is a flow concept, occurring over a period of time. The relationship between these stock and flow aspects is of a dynamic production type; the assets yield a sequence of productive services through time. The agent aspect bears a relationship to both the asset and service aspects. However, these crucial relationships are not those pertaining to production in the narrow, engineering sense. Rather,

TABLE I

Aspects of Primary Factors of Production

Primary factors \ Aspect	I Agent	II Asset	III Services
Land	Landlord	Natural Resource Endowment	Land Services
Labor	Laborer	Population	Labor Services
Capital	Capitalist	Capital Stock	Capital Services
Entrepreneurship	Entrepreneur	Technology and Entrepreneurial Capacity	Entrepreneurial Services

the primary significance of agents lies in their relationship to the economy's organizational rules and principles.[1] In this broader context, economic agents discharge the functional role of owning and controlling

[1] In our survey of the historical approach we stressed the significance of organizational factors as one of several background conditions governing particular epochs. See Douglas S. Paauw and John C. H. Fei, "The Historical Approach to Economic Growth" (Washington: Center for Development Planning, National Planning Association, 1968), pp. 4-7, 104-111, and 139 (mimeo).

the economy's stock of assets to generate productive services through time.

This tripartite classification of the primary factors' economic aspects is clearly seen by an example--the factor land. The landlord as agent controls the use of land as an asset and its provision of a stream of land services in each period of time. However, the same tripartite classification holds for all factors of production. In the history of economic thought, different facets in this classification have been singled out for analytical emphasis.

In early growth theory, the concept of factors of production as economic agents always played a central role. As we have seen in the historical approach to growth, the Physiocrats emphasized the cultural pursuits of the nobility as the main growth-promotion force. The picture of agrarian stagnation was drawn in terms of a society whose organization was based upon control by the feudal nobility in the role of economic agents. This feudal method of economic organization gradually gave way to a new method, involving new agents, in the century preceding the Classical economists. To Adam Smith and his immediate followers, the tripartite division of factors of production into land, labor, and capital reflected the method of British farm organization prevailing at that time. The asset land was closely associated with the aristocratic landlord,

labor with the newly emerging landless proletariat class, and capital with the capitalistic farmers who rented land from the landlord class.[2] The capitalistic farmer, who hired labor in contractual form and undertook general management of the production process, became a key economic agent. Thus, the early Classical economists recognized that these classes of agents performed the essential economic functions under a particular form of economic organization.

The agent concept was paramount in the growth framework of Karl Marx. Central to Marx' concept of economic agents was the social and organizational significance which he ascribed to them. From the viewpoint of growth, the merit of this interpretation lies in its broadened view of the role of economic agents. They not only perform economic functions in the narrow production input sense but also organize, control, and shape the society in which the economic system functions. Marx maintained that the resulting social conflict, detracting from the efficiency of productive organization, would eventually undermine capitalism as a

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[2] Writing of "Adam Smith and his followers," Frank H. Knight remarks: "The typical capitalist, and at the same time the 'entrepreneur' (as he later came to be called) was the 'farmer' in the British sense, who rented land and hired laborers..." "Capital and Interest," Chapter 21 in American Economic Association, Readings in the Theory of Income Distribution (Philadelphia: Blakiston Co., 1946), p. 385.

growth epoch. This treatment of economic agents allowed the Marxist framework to encompass a scope for growth analysis beyond the confines of narrow production phenomena by adducing organizational considerations.

The neo-Classical economists, such as Stanley Jevons, Leon Walras, and Eugene von Bohm-Bawerk, turned to the type of economic problem which led to a sharpened distinction between the assets and services aspects of primary factors. From this distinction, economic analysis came to focus upon two major types of problems, one emphasizing the services concept; the other, the stock-flow relationship. On the one hand, the utilization of services (production, consumption, distribution, allocation) led to the tour de force of the general equilibrium system conceived by Walras. On the other hand, stock-flow relationships were stressed in the flowering of capital theory which sought to explore the ramifications of the asset valuation aspects of production. In this way economics came to be conceived of as a "pure science," divorced from all non-engineering relationships, in particular the organizational features associated with the utilization of primary factors.

Despite the noteworthy advance of economics as a pure science during this neo-Classical era, this bifurcated development of general equilibrium and capital theory led to the eclipse of the significance of the economic agent for 7 or 8 decades prior to World War II. It is important

to realize that this coincided with the neglect of the study of long-run economic growth. A realistic approach to long-run economic growth must involve the study of institutional frameworks which shape the society's organizational rules as an essential aspect of growth. The neglect of economic agents by neo-Classical economists was a direct consequence of their lack of interest in long-run growth issues.[3] With the exception of an attempt at re-introduction of this emphasis by Schumpeter, growth and economic agents were long absent from the mainstream of economic literature. In Schumpeter's brief but important interlude, a very basic concept was the organizational efficiency of capitalism in harnessing innovation as a major growth institution. This problem is, indeed, one of the most crucial issues of growth in contemporary less-developed countries.

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[3]This distinction between the neo-Classical economists and their predecessors was clearly recognized by Schumpeter. In interpreting Joseph Schumpeter's views on this issue, Elizabeth Boody Schumpeter writes: "Marx and Walras were poles apart. The one attempted a logical explanation of economic change; the other gave us a theoretical apparatus which for the first time in the history of our science effectively embraced the pure logic of the interdependence between economic quantities." Foreword to Joseph A. Schumpeter, Ten Great Economists (New York: Oxford University Press, 1951), p. ix. In our present frame of reference we observe that these quantities were essentially the services flowing from productive factors.

With the pressing interest in development of less-developed countries emerging after World War II, growth theory has reappeared as a major focus of attention. Not long after this recrudescence of interest a consensus on the complexity of the development process appears to have been accepted. In acknowledging that development is a process of multi-dimensional change, all aspects of primary production factors once again become legitimate areas of knowledge. In particular, the significance of economic agents as functionaries in the process of change has regained recognition and analytical attention. In addition to the quantitative production aspects associated with the services and asset concept and the functions performed in operating the economy with these resources, we find, therefore, the emergence of a new qualitative aspect specifically concerned with the agent.

2. NATURE OF THE INSTITUTIONAL APPROACH

GROWTH PHILOSOPHY

From the distinction just made, we see that there are two broad categories of problems related to the economy's primary factors of production: their utilization in the quantitative or engineering sense and the quality of human agents who control them. We have seen in the previous section that in the history of economic doctrine, the agent aspect has been given prominence in much of the history of economic doctrine. It may be found to be implicitly assumed (as in the Physiocrats and Classical economists) or explicitly recognized (as in Marx). It was only when interest in growth and development was eclipsed--as it was in the neo-Classical tradition--that the agent aspect was neglected in economic analysis. It is apparent that the issues of human agents and the organizations through which they discharge developmental roles must be incorporated into the analytical framework if the analysis is to be relevant to the entire range of growth and development phenomena. A valid case can be made for the argument that long-run economic development is at least as much a process of improvement of economic agents and their organizational efficiency as it is a matter of increasing supplies of physical factor inputs. Indeed, this humanistic orientation,

emphasizing the economic agent, is the basic tenet in the growth philosophy espoused by the institutionalists.

THE INSTITUTIONAL APPROACH IN HISTORICAL PERSPECTIVE

The contribution of the institutionalists in reviving the agent and organizational aspects is particularly germane to a historical vision of the growth of contemporary less-developed countries. In reviewing the historical approach to growth in Chapter 2, we have construed long-run growth as an evolutionary process involving a succession of growth epochs. In particular, we stressed that the modern economic growth epoch is a unique growth system, distinctly differentiated from the preceding colonial epoch. Moreover, between these epochs we identified a period of transition during which a society's fundamental rules of economic growth must be modified. These changes in the principles of the economy's operation, however, reflect underlying changes in the society's background conditions.

Transformation of background conditions is manifested in two dimensions. On the one hand, launching of the modern economic growth epoch requires that new, unfamiliar economic functions be undertaken, involving greater organizational complexity than the colonial epoch required. On the other hand, new classes of economic agents must

emerge to forge the new institutional and organizational arrangements to discharge these functions. In recognizing these dimensions, it is a short jump to the further perception that the qualitative improvements in performance required for the operation of a more complex economy depend entirely upon the quality of human agents. This leads to two separate lines of inquiry: the nature of these essential economic functions to be performed and the capabilities of the human agents who perform the essential economic tasks.

THE ANALYTICAL EMPHASIS

These two lines of inquiry--pertaining to the new economic functions and the new economic agents--should ideally be treated as related components in a single analytical framework. The new economic functions must be performed by agents, and the operational significance of the concept of "agents" in a growth context is essentially a matter of how efficiently the new economic functions are discharged. Nevertheless, in the current rudimentary state of growth knowledge, this crucial link is not made, and the two lines of inquiry are pursued independently. Broad distinctions among the essential economic functions marking off particular growth epochs are found in the historical approach (see Chapter 2), while special aspects of the economic functions characterizing

particular epochs have been treated more intensively by the theoretical approach (see Chapter 5). Implicitly, the position of the institutional approach begins by recognizing the emergence of, and the necessity for discharging, new economic functions as central phenomena during the transition to modern economic growth. However, the institutionalists accept these functional prerequisites as "given" and self-evident. Starting from this premise, the emphasis of the institutional approach is concentrated formally and exclusively upon analysis of the organizational efficiency of human agents. This emphasis conforms to the humanistic orientation of their growth philosophy.

THE ANALYTICAL FRAMEWORK

The institutional school is strongly committed to the view that economic development is a product of the total cultural characteristics of developing countries. Broadly defined, these characteristics embrace both a society's social organization and the human agents' values and attitudes which support the persistence of the particular social system. These broad cultural characteristics offer certain general clues to the performance capabilities which economic agents bring to bear on the essential economic functions associated with particular growth epochs. The significant contribution offered by the institutional school is precisely

a framework for more concrete investigation of the content of the operational links between a society's broad cultural characteristics and essential economic functions. We now proceed to identify the major links developed in the work of this school.

The Learning Process

The capability of human agents to discharge economic functions is in large part a matter of the ability to make and execute effective decisions. The acquisition of this ability in any society and with reference to the operation of any growth epoch may be broadly described as an educational or learning process. Education is construed more broadly than the mere acquisition and development of knowledge. Emphasis is given to personality formation as a part of the educational process, the goal being the inculcation of personality traits conducive to assumption of growth-related functions. This learning process encompasses a wide range of social experience including both informal and formal education. In fact, the general view of the institutionalists is that formal education, although an important component, is a small part of the total learning process by which decision-making skills are acquired in less-developed

countries.[4] More prominence is given to the large doses of informal learning absorbed by human agents from their repeated interaction with the social groups in which they live and move.

Learning and Groups

The key to understanding these informal learning influences, which have overriding significance in terms of decision-making capabilities, lies in the roles played by social groups. In sociology--as well as in mathematics--a subgroup is conterminous with a particular binary relationship (in the present context a social relationship) existing among its membership. In human society such subgroups (referred to as "particularistic groups" by the institutionalists) are formed by relationships having to do with kinship, religion, ethnic origins, language, and many other factors. These subgroups influence economic behavior in all societies; economic agents rarely behave as atomistic and independent individuals--as the neo-Classical economists would have us

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[4] See, for example, Everett E. Hagen, "On the Theory of Social Change: How Economic Growth Begins" (a summary of the book by the author) in Development Digest, Vol. I, No. 3 (January 1963), p. 70.

believe. The institutionalists envisage all social groups as having learning implications, some favorable and some unfavorable to the acquisition of economic capabilities. Given the centrality of this theme in the institutional approach, a brief elaboration is appropriate.

THE FAMILY AND THE NATION

Two social groups emphasized by the institutional school, the family and the nation, stand at either end of the spectrum of social organization. The most intimate, particularistic group is the immediate family while the largest, most universalistic is the nation. The family plays a special role in the early learning process in which the individual's personality is formed. In less-developed countries, where opportunities for formal education are relatively scarce and the child is insulated from early influences outside the home, the family typically constitutes the most important educational exposure, frequently covering infancy, childhood, and even early adulthood. At the other end of the spectrum is the large, diffuse nation group whose educational function may be thought of as instilling the principles of nationalism. While this function may appear somewhat oblique at first blush, a moment's reflection calls to mind the profound potential learning significance of the national group. The spirit of full-blown nationalism exerts a pervasive and powerful

influence upon individual attitudes and behavior. Individuals may be molded into a massive group with common values, motivations, and aspirations. Charismatic leadership--itself a product of nationalism in contemporary less-developed countries--often consciously exploits the opportunities for inculcating in their subjects these facets of nationalism.

PARTICULARISM AND FUNCTIONAL DIFFUSENESS

Between the extremes of the universalistic national group and the microcosm of the family lie a large number of more or less particularistic social groups. All of these have an educational impact upon their members. If somewhat nebulous, their potency may be recognized by realizing that an individual's daily activities, which are a main source of informal learning, are always conducted within the rules, mores, and expectations of the particularistic groups in which he functions. In the typical traditional society, the institutionalists find this array of particularistic groups which condition human behavior to be functionally diffuse. The learning they impart to their members covers a wide variety of behavior, mostly peripheral to the discharge of economic functions. Thus, in an important part of the total learning process--that of the participatory or "learning by doing" kind--the traditional society's groups transmit functionally diffuse knowledge.

In perpetuating the particularistic groups endemic to traditional societies (as we have seen in Chapter 2), therefore, the colonial epoch preserved the customary diffuse patterns of learning. The educational task to be accomplished during the transition to modern economic growth is readily deducible. New institutions must be organized to transmit knowledge of functionally specific kinds. Examples of such institutions include modern schools, labor unions, financial institutions, trade associations, and farmers' associations. The educational significance of these modern institutions lies in the fact that membership is contingent upon acceptance of common standards of performance and uniform criteria with respect to growth functions, such as the acquisition of skills (schools), mobilization of savings (financial institutions), and insistence on productivity measures of performance (labor unions). An important feature of the learning transition, therefore, is the gradual displacement of the functionally diffuse particularistic groups of the old regime by institution-building attuned to specific functions required for ushering in the modern growth epoch.

THE BRANCHES OF INSTITUTIONAL ANALYSIS

Using this broad vision of the total learning matrix appropriate to the transition, the analytical content of the institutional approach may be classified into three major branches. The first branch, which will be referred to as the subjective aspect, focusses upon the process of the individual's personality formation, as it is conditioned by the total social environment to which the individual is exposed. The label "subjective aspect" serves to emphasize the fact that the analysis concentrates upon the attitudes, motivations, aspirations, and values instilled in the human agent, the subject of the learning process. The second branch, which will be referred to as the group or objective aspect, focusses upon the developmental significance of the particularistic groups within which the subjective agent must function in filling his social roles, whether specifically economic or diffuse. The label "objective aspect" stresses the fact that analysis is addressed to the operational significance of the subjective attributes and involves groups in which the agent's capabilities are both learned and utilized. The problems concerned with the society's remolding of social groups in forms appropriate to the new functions of modern economic growth comprise an important part of the institutionalists' transition analysis.

The dominant thrust of the institutional school's contributions to these two strains in their analysis leads primarily to an understanding of the causation of the perpetuation of stagnation in the traditional society. Unlike other stagnation theories--those of the Classical economists and Marx, for example--the institutionalists' humanistic orientation is reflected in their view of economic stagnation as merely a symptom of stagnation in the quality of human agents. The fundamental cause of stagnation is found in the unsatisfactory nature of the learning process. Reversing the pattern of stagnation, therefore, is a matter of understanding and improving the quality of the learning process. Creation of new classes of economic agents, particularly entrepreneurs, is recognized as a task of great difficulty, at best a slow, arduous, step-by-step learning process. The institutional school recognizes this as a fundamental issue of development policy, but in view of the complexity of the subject their work has as yet failed to produce much in the way of operationally useful conclusions. The third branch--which is concerned with this issue and is necessarily speculative in nature--will be labelled as the transformation of economic agents.

3. THE SUBJECTIVE ASPECT

HAGEN'S QUASI-EQUILIBRIUM THEORY

The work of Everett Hagen stands out among the writings of the institutional school in its focus upon the subjective aspect of the individual as an agent of change.[5] Hagen's basic premise is that routinized modern growth requires that the critical economic agents possess personality traits conducive to innovation. Such personality traits are acquired mainly through the broad educational process, defined to include--and, indeed, to Hagen mainly--the environmental factors confronted during childhood when personality is formed. Thus, Hagen concentrates on these environmental factors in terms of their impact upon the development of adult innovational capacity. Hagen describes his work as a "model which stresses the chain of causation from social structure through parental behavior to childhood environment and then that from childhood environment through personality to social change."[6]

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[5]Hagen's approach is presented most completely in Everett E. Hagen, On the Theory of Social Change (Homewood, Illinois: The Dorsey Press, Inc., 1962).

[6]Ibid., pp. 8-9.

Following the lead of the historical school, Hagen begins with a discussion of the traditional society, which he defines as follows:

> "A society is traditional if ways of behavior in it continue with little change from generation to generation. Where traditionalism is present, certain other characteristics are also found. Behavior is governed by custom, not law. The social structure is hierarchical. The individual's position in the society is normally inherited rather than achieved. And, at least in the traditional state so far in the world's history, economic productivity is low. A traditional society, in short, tends to be custom-bound, hierarchical, ascriptive, and unproductive..."[7]

The causation of economic stagnation is analyzed in terms of the personality instilled in individuals by the traditional society. This personality is averse to innovation and will thus perpetuate the social environment typical of this type of society. Personality and environment interact to maintain a quasi-equilibrium type of economic stagnation. The two produce a vicious circle of an interlocking and reinforcing nature. These forces are described by Hagen:

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[7] Ibid., pp. 55-56.

> "...the personality typical in traditional societies, the hierarchical and authoritarian social systems in those societies, and the traditional economic conditions interlock to create a system in stable equilibrium. In the rather authoritarian home environment of infancy and childhood, the child learns to avoid anxiety by not using his initiative. Rather, he waits for directions. This environment inculcates a personality in which attacking problems, except in certain very narrow spheres, arouses anxiety. Hence, there is no innovation in techniques or in social structure. Depending on a hierarchy of social authority is therefore satisfying, as is directing the individuals below one in the hierarchy by virtue of one's authority. Personality, social structure, and economic limitations are mutually supporting and perpetuating, and the society is in a quasi-steady state, a noninnovational one."[8]

As is typical in quasi-equilibrium analysis, the elimination of one force undermines the entire system. Thus, the central issue to which Hagen's work is addressed concerns the conditions required to break the constraints of the traditional society. The policy implication is that with the disruption of these constraints the society will be capable of producing individuals who will exercise initiative in assuming innovative roles. Hagen is not clear about the precise causation of

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[8]Everett E. Hagen, The Economics of Development (Homewood, Illinois: Richard D. Irwin, Inc., 1968), p. 169.

change to a new set of conditions beyond ascribing the precipitating cause to some historical accident "usually, accession of a new group to power, but also certain other types of events." However, once such a precipitating cause has disturbed the equilibrium of the traditional society, the nature of the transitional process is quite explicit in Hagen's system. The authoritarian structure of the traditional society is weakened by the external shock. The top elite group withdraws the support and status it traditionally accorded to the middle level and lower elite groups. These latter groups react by "retreatism," a gradual withdrawal from the authoritarian roles appropriate to the traditional society. This retreatism has profound effects upon the children of these groups. As Hagen puts it, "As a result, children are freer to use their initiative, and in certain circumstances some of the children become much more innovational. In time, then, casting about for ways of proving their work (to themselves, as much as to the top derogating elites), they gain success economically by technical innovation."[9]

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[9]Ibid., p. 170.

EVALUATION

If we denote labor productivity by $Y^* = Y/L$ and capital per head by $K^* = K/L$, most quantitative growth theorists would not hesitate to write a dynamic production function for the whole economy as:

$$1.1) \quad Y^* = f(K^*, t)$$

where "t" stands for time. This production function is used to summarize two factors affecting growth as measured in terms of increasing output per laborer, Y^*: (i) capital accumulation leading to capital deepening (increasing K^*) and (ii) innovation (a change in the production function itself). What appears to be a general formulation, however, has more often than not been used in rigorous growth models to emphasize one factor at the expense of the other. On the one hand, elaborate treatment is given to K^* as a cause of growth (e.g., through saving and income distribution theory) leading to "precise" analysis of the relationship between productivity change and capital accumulation. On the other hand, the treatment given to "t," the innovation factor, has

often been neglected after being formally stated as in (1.1).[10] The problem of causation of innovation is rarely confronted. This state of affairs is indeed unsatisfactory since analysis has revealed that as a causative factor in productivity growth innovation is more important than factor inputs, particularly during the earlier stages of development.[11]

Thus, Hagen properly criticizes economists for over-emphasizing capital formation as the prime cause of growth at the expense of innovational capacity and energy.[12] In his view, the key to growth lies in the innovation factor. Further, Hagen addresses himself to the issue of causation of innovation by relating it to individual initiative to introduce technical change in production as well as to create social institutions more conducive to growth. The fundamental explanation of differences in growth performance among societies, therefore, is found

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[10]Normally treatment goes little beyond formal measurement and classification of different types of innovation (e.g., labor-saving, capital-saving) combined with investigation of their impact on Y* if they occur.

[11]See, for example, Robert Solow, "Technical Change and the Aggregate Production Function," Review of Economics and Statistics, Vol. 39, August 1957.

[12]Hagen, op. cit., p. 192.

in the extent to which the cultural milieu produces individuals with the motivation and capability for innovative activity. Analysis of the primary cause of growth is thus placed in its proper perspective, directly focussed upon innovation, "t."

We wholeheartedly agree with Hagen's position that for transition types of growth the most basic aspect of change lies in the quality of economic agents as innovators. The major mechanism of change is seen to be in education--often emphasized in development planning. However, given this correct emphasis on education, Hagen warns against the operational assumption of the planning school that innovative capacity can be created by education and training: "Some of the economists who stress the importance of 'investment in human resources' seem to assume that all differences in worker capability other than those due to inherited qualities and physical condition are attributable to deliberate education and training and can be created by deliberate policy. This is naive psychology. Differences among individuals in motivation and capability at adulthood are caused in large part by the environment to which the individual is exposed during infancy, childhood, and adolescence."[13]

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[13] Ibid., p. 203.

Hagen views informal and institutionalized learning as having an important function in developing entrepreneurial capacity, once an innovative spark is generated in a society. Formal education and learning by doing indeed provide the skills needed for assuming increasingly sophisticated innovative roles--"the tools of literacy and general knowledge as well as vocational and technical skills."[14] In fact, Hagen stresses the importance of a gradual learning-by-doing process to allow the entrepreneur to acquire managerial and organizational skills essential for undertaking increasingly significant technical innovations. But Hagen cautions that "the learning required is not simple, and the prospect may deter any but the boldest entrepreneur from making a large technical move at one step....Even for energetic, judicious, and self-confident native enterprises the transition may be from cottage industry to workshop to a modest degree of mechanization to a true factory, and may require a lifetime, or the combined lifetimes of father and son."[15] This gradual change requires a more basic educational process involving the familiar environmental factors affecting the childhood formation of personality.

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[14]Hagen, "On the Theory of Social Change: How Economic Growth Begins" (A summary of the book prepared by the author), Development Digest, Vol. 1, No. 3, January 1963, p. 70.

[15]Hagen, The Economics of Development, pp. 94-95.

Hagen pictures the innovative process, once underway, as beginning with industrial activity and gradually ramifying into broader innovations in the society's institutions as well as agriculture. "Some of the members of the emerging business class may then become political leaders and carry forward the alterations in sociopolitical institutions which are already underway. Others may carry forward technical progress in agriculture outside of traditional agriculture. Such men, rather than traditional landlords, are responsible for the opening up of new lands and the rapid increase in agricultural output in recent decades in Mexico, Colombia, and some other Latin American countries. Later, with the steady erosion of peasant agricultural institutions by industrialization, urbanization, and the modern equivalent of the enclosure movement, peasant agriculture will follow along."[16] Thus, Hagen's theory clearly seems to imply priority to industrial entrepreneurship leading to an eventual sequence in which the new innovative forces are extended to agriculture. Such a view accords closely with our findings in reviewing the historical approach (in Chapter 2) in which we observed the penetration of mercantile forces into the agrarian economy during the agrarian-mercantile epoch.

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[16] Ibid., p. 120.

To summarize, we note that Hagen offers three significant contributions to our understanding of the transition process:

(i) The emphasis upon the causation of innovation as the fundamental determinant of growth.

(ii) The identification of causation as a broadly defined learning process throughout the society, in which formal education complements the changes induced by informal learning.

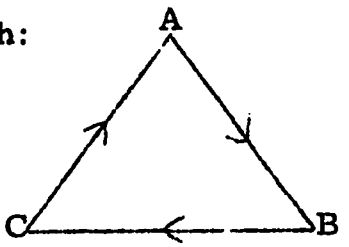
(iii) The recognition that the sequence of innovational activity proceeds from the industrial sector to agriculture, giving us policy guidance.

CRITICISM

Criticism of Hagen's thesis may be directed to three aspects of his work. The first aspect concerns the problem of methodology, a methodology perhaps typical of the institutional approach. The basic shortcoming of the approach is that an adequate number of concepts have not been succinctly defined to give the education thesis analytical rigor. This basic difficulty involves three serious drawbacks: (i) the thesis lacks a deductive source of reasoning; (ii) in its present form the analytical concepts have not formulated in terms appropriate for

verification or refutation by observable data;[17] and (iii) the generality and simplicity of the thesis is incompatible with the obvious fact that problems of personality formation, psychological development and their social behavior implications are extremely complex.

A second basic criticism may be directed at Hagen's particular use of the quasi-equilibrium idea. To state the quasi-equilibrium notion abstractly, let A, B, and C represent certain social phenomena. The quasi-equilibrium structure may then be shown by a circuit of a linear graph:



In this formation, the notation $x \rightarrow y$ is a directed edge meaning that the phenomenon "x" contributes to the stability and perpetuation of "y." The circularity of the linear graph then signifies the simultaneous and mutually reinforcing character of the causation system.

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[17] Hagen examines the experience of several societies which have successfully escaped from the limitations of traditional authoritarianism. He is unable to verify his theory explicitly, but he finds nothing in historical experience which is inconsistent with his interpretation of the cultural forces which either repress or encourage individual assumption of innovative roles.

The vicious circle notion, implied in the quasi-equilibrium system, is frequently found in the institutionalist approach to underdevelopment. A well-known example is the following:

A = A country is poor as measured by low per capita income and productivity.

B = The country has low saving capacity because output must be consumed.

C = The country has low capital accumulation and expenditure on education because saving is low.

Given these interlocking conditions, the economy is confined to a quasi-equilibrium state which implies stagnation.

Hagen's basic thesis is cast in terms of this methodological vein. His formulation may be restated as follows:

A = Adults have a paternalistic, authoritarian approach to child-rearing.

B = These childhood environmental conditions lead to the formulation of non-growth oriented personalities.

C = These personalities lead to aversion to social change.

This quasi-equilibrium system thus explains stagnation on the ground of perpetuation of a particular type of educational environment in the personality formulation process.

We see that Hagen's thesis is one species of a large family of "models" in the institutional approach to growth. The approach attributes stability to the mutually reinforcing nature of a multiple causation system. Such an approach has the advantage of predicting that when the system collapses: (i) the collapse can begin from any one corner; and (ii) the collapse is likely to involve a chain-reaction process, like a string of dominoes, affecting many facets of the social phenomena (A, B, C). While such an approach is not without merit, its power to depict the process of social change is often rather limited. Generally, it cannot deduce the process of social change as the notions involved are too vague to predict which particular event will occur first. Hence, the issue of which factor to attack first as a precipitator of change is likely to be outside the scope of a quasi-equilibrium theory. We have seen that Hagen resorts to the appearance of some historical accident to precipitate his chain of collapse of the traditional society. For this reason, policy recommendations are dubious since they are not supportable by the internal logic of the model.[18]

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[18] A concrete example of Hagen's policy recommendations is his belief that the development process will begin with industry rather than with agriculture.

Finally, Hagen's theory may be criticized on the ground that it is operationally unrelated to the traditional economic approach to growth. While the other types of approaches reviewed--historical, planning, and theoretical--may differ in their emphasis, they show the common characteristic of all being concerned with the same general phenomena as the focal point of their analysis; namely, the body of economic data incorporated in national income accounting systems. In contrast, the institutional approach is concerned with less precisely defined phenomena largely unrelated to traditional economic concepts and phenomena describable in terms of these economic magnitudes. The relationship between the institutional and the other approaches is, therefore, informal and indirect. At best, the implications of institutional-type analysis are very unclear in terms of their operational significance involving observable economic variables. For this reason, despite the valuable insights offered, the institutional approach has had rather meager influence upon growth theory.

In criticizing Hagen's theory as an imprecise, metaphysical type of reasoning devoid of relatedness to traditional economics, we note that this difficulty adheres to all the contributions of the institutional approach. While their preoccupation with the necessity for transformation of economic agents is indeed praiseworthy advice, their

contributions have been generally limited to providing stimulating background ideas. Their research tends to stop short of proceeding to more satisfactory answers. What is needed is the building of links between "subjective change" and a more realistic analysis of the transitional growth process. These links should be sought in terms of directly observable and familiar economic events (e.g., investment, intersectoral functions, and economic diversification). We shall attempt to establish such linkages between institutional forces and economic functions in our later chapters.

4. THE GROUP ASPECT

The economic behavior of agents, though influenced by their subjective conditioning, is primarily expressed within the confines and through the medium of particular groups in the society. A fundamental hypothesis of the institutional school is that the nature of particular groupings and the relationships they involve have an important bearing upon a society's prospects for growth and development. In this connection, those institutionalists who may be described as group-oriented are concerned with the extent to which social groups foster or inhibit the agent's acquisition and exercise of the skills and mental attributes for performing the new economic functions essential to transitional growth. The fundamental issue is the relationship between social groups and the agent's capacity to discharge the new growth functions, especially those of innovation and the more efficient organization of production.

To the group-oriented institutionalists, this issue involves the nature and functions of particularistic groups. To the extent that such particularistic groups dominate the economic decision-making process, prospects for growth and development tend to be unfavorable. In the traditional society, particularistic groups (whether kinship, linguistic,

ethnic, or religious in origin) occupy strategic positions in regard to two distinct aspects of the society. First, these groups perform a large number of social, cultural, and economic functions. The very diffuseness of these functions, the mixing of economic decisions with noneconomic considerations, implies that the pervasiveness of particularistic groups in the traditional society inhibits growth. Second, these groups represent a particular pattern of power structure, described by the institutionalists as authoritarian, hierarchical, and ascriptive. The very characteristics of this power structure enable it to perpetuate itself. The developmental significance of the traditional power structure lies in the fact that the replacement of traditional groups by groups more conducive to growth must be basically a process of political evolution. The group-oriented institutionalists, therefore, view the acquisition of capabilities for modern political organization as equally critical for growth as improvement in the economic decision-making capacities of individual human agents.

In the political evolution of the society, a central development task to be performed is the formation of a modern, national state. The modern state is conceived as a universalistic group which supersedes and enlists the loyalty of all particularistic groups in the society, under a recognized leadership role in the process of development. In this

respect, the group-oriented institutionalists are concerned with the extent to which traditional particularistic group organization discourages or permits nationalistic development. In the setting of prevalent particularistic groups reinforced by the power structure of traditional societies, a national consensus to subsume and displace the interests of particularistic groups in national development cannot be taken for granted. Economic growth will be blocked to the extent that nationalism lags. We briefly review the institutionalists' positions with regard to these interrelated issues of particularistic groups and political evolution before proceeding to our evaluation.

MASS PARTICIPATION ON FUNCTIONAL GROUNDS

The contemporary approach to particularism and development is exemplified in a recent symposium.[19] In the view of this group of scholars, old forms of group organization, emphasizing kinship and other traditional forms, must be replaced by "more impersonal systems of evaluation in which men are judged by the way they perform specialized

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[19]Max F. Millikan and Donald L. M. Blackmer (eds.), The Emerging Nations (Boston: Little, Brown and Co., 1961).

functions in the society...and new hierarchies based on function must come to replace those rooted in landlordism and tradition."[20] It is argued that particularistic groups in traditional societies--whether ethnic (e.g., tribes), kinship (e.g., clans), or religious (e.g., feudal sultanates) in origin--have a variety of functions unrelated to, and hence inappropriate for, the requirements of modern economic growth. In the particularistic group system individuals are rewarded on grounds other than the quality of their performance in growth-related tasks such as savings, investment, innovation, acquisition of skills, and propagation of attitudes conducive to acquiring material wealth. The nub of group change conducive to growth, therefore, is considered to be the evolution of greater functional specificity throughout the society. New group patterns must be formed, in which rewards and status are accorded to those individuals performing growth-related functions. In terms of the society's group values, these changes require the appearance of more universalistic values and the abandonment of the traditional criteria, unrelated to economic performance, for conferring status and rewards.

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[20] Ibid., p. 21.

The institutionalists who accept these arguments naturally subscribe to the view that growth is intrinsically a process of political evolution. Inherent in the traditional society's functional diffuseness and its system of status and rewards is the hierarchical, authoritarian power structure. The particularistic value system cannot be eroded until the traditional power structure comes to be replaced by one with greater participation of the society's many interest groups in a process of voluntary economic decision-making. This strategic change will only come slowly and will involve resistance: "The small elite groups who dominate the political process in a traditional society are virtually certain to oppose change, for change inevitably means reduction in their status."[21] Thus, changes in economic agents, organization of production, and economic functions necessary for transition to modern growth require a realignment of political power instrumental in encouraging mass participation in economic decisions on functional grounds.

The "degree of competitiveness" in the political process (to use the term of this group of scholars) as it relates to changes in the society's

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[21] Ibid., p. 21.

power structure thus becomes the critical aspect of group organization related to growth. "Economic progress requires a dispersion of initiative and decision-making to a growing number of groups throughout the society; and economic progress itself creates new kinds of professionals, new urban techniques, new initiatives among the peasantry, new attitudes toward saving, and a new mobilization of capital resources for productive purposes."[22] All of these new groups become potential candidates for sharing in political power. In particular, a new class of entrepreneurs dedicated specifically to the assumption of the critical modern growth functions may be considered as among the most crucial contenders during the transition. The social and political barriers preventing the expression of initiative in the traditional society must give way to a system in which the new entrepreneurial class has access to political power--an ultimate form of reward for economic excellence, bringing with it the power to dispose resources for growth. The question naturally arises as to what conditions favor the transfer of power to such new economic elite groups. The answer, however, remains vague. We are left with the clear message that opportunities for increasingly greater

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[22] Ibid., p. 100.

participation in control of the society's resources is a precondition for growth. When such a process has been underway for some time, new economic agents in the role of the industrial entrepreneur will gradually be able to encroach upon the control exerted by agents operating the traditional society. Economic development, by engendering widening participation in the society's decision-making process, is as much a means to political evolution as an end in itself.

NATIONALISM

Many group-oriented institutionalists have focussed upon the emergence of nationalism as a condition for development. Nationalism is construed here to mean national unity in the sense that a political consensus emerges at the national level transcending the particularistic group loyalties which are dominant in the traditional society. Representatives of the institutional school find this process of evolving nationalism to be a central feature of the transitional society:

> "In the transitional society, the gradual reintegration of individual personalities through the growing predominance of modernizing values and norms in individual attitudes and behavior proceed parallel to and in continuous interaction with the gradual emergence of a new sense of national and cultural identity that can integrate the many particularistic groups and interests and orient them toward a reasonably consistent and compelling sense of national purpose. Thus, a crucial role in this process is played by common values, norms, and standards that can transcend--although they need not suppress or supersede--individual and group interests and behavior patterns."[23]

By way of summarizing the group-oriented institutionalists' approach to development, we note that their dual emphasis upon mass participation on functional grounds and nationalism are clearly related aspects of political evolution. Both begin with the observation that the particularistic groups in traditional societies typically involve a system of decision-making and associated incentives and rewards inimical to rapid economic change and growth. If rapid economic progress is to be achieved, the traditional social system must, therefore, be replaced by one more conducive to growth. There appear to be two principal directions that

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[23]Geiger, The Conflicted Relationship (New York: McGraw-Hill, 1967) pp. 114-115.

social change should take, both involving political organization. On the one hand, a more universalistic (non-exclusive) group providing general social cohesion through nationalism is needed. On the other hand, a new pattern of particularistic groups (e.g., a class of entrepreneurs, political parties, labor unions), conforming to the requirement of functional specificity for growth and sharing in the political process, should replace the traditional group system. To the extent that these processes of political evolution impose sacrifices upon vested interests in the traditional societies, resistance will be encountered and social stress experienced. In the extreme case, political stagnation may result, blocking the paths to increasing the society's capacity to assume new economic functions for modern growth.

EVALUATION

The group aspect, as analyzed by the institutionalists and summarized above, is indeed relevant and significant for understanding the process of social change required for a society's transition to the modern economic growth epoch. Greater realism is brought to the study of economic growth by emphasizing the influence of social groups upon the performance of economic agents. Even a casual glance at the contemporary scene in less-developed countries serves to confirm the

validity of this approach. No one can deny the profound development implications of particularistic groups as we find them dominating domestic issues, as, for example, in the ethnic problems confronted by Malaysia, the linguistic problems of India, and the strong kinship ties in the Philippines.

The two general strains in the group analysis just reviewed may be rephrased in terms of two major group values that have been emphasized as conditions for the modern economic growth epoch by Simon Kuznets, egalitarianism and nationalism.[24] As Kuznets implies, it is in the work of the institutional school that we find concrete efforts to elaborate the relationship between these social phenomena and economic performance. We consider, in turn, the institutionalists' position with regard to egalitarianism and nationalism.

The social value known as egalitarianism represents a fundamental belief in human equality with respect to social, political, and economic rights and privileges. As a condition for modern economic growth, egalitarianism conveys upon all human agents equal opportunities

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[24]Simon Kuznets, Modern Economic Growth: Rate, Structure and Spread (New Haven: Yale University Press, 1966), pp. 13-15.

for participation in economic roles, with limits imposed only by innate differences in capacity. More specifically, egalitarianism promotes active participation in economic decision-making on the basis of individual abilities and choice. The criteria according to which individual participants are rewarded relate exclusively to the quality of performance in specific roles promoting growth--savings and investment, individual effort, acquisition of skills, experimental inclination, risk-assumption and willingness to accept change, to mention a few of many growth functions.

These arguments emphasizing the developmental significance of egalitarianism have long been appreciated by social scientists. The contribution of the institutional school is found in their recognizing that egalitarianism, being a group-related phenomenon, evolves through a process of group change, specifically political in nature. The institutionalists show why rapid economic growth is unlikely to occur where non-egalitarian values exist. In traditional societies, where individuals are rewarded according to noneconomic criteria (e.g., heredity religious status, or class distinctions), innovative talents are suppressed. Moreover, the noneconomic goals of particularistic groups, and the system of rewards they imply, are perpetuated by the values instilled through the very existence of these groups. The conditions under which

this self-perpetuating type of non-egalitarianism can be gradually eroded are touched upon by the institutionalists, but we are given little insight into the process by which this occurs.

Nationalism represents the allegiance of all members of the society to broader interests of the national group which includes and transcends those of all particularistic groups. The key question is why nationalism, in this sense, is a prerequisite for modern economic growth. From the work of the institutional school, certain important aspects of the relationship can be deduced. We list five types of arguments which can be traced to the disintegration of traditional, particularistic groups and the rise of the universalistic modern state.

(1) First, there is the rather obvious point that nationalism is an essential condition for the achievement of a minimum legal and security framework for economic growth. Internal peace, maintenance of law and order, and a stable, nonarbitrary legal system for the conduct of increasingly complex economic activities are all important aspects of this national framework.

(2) Second, nationalism contributes to the integration of the society, eliminating the separatism of particularistic groups. The fragmentation of the economy, associated with such separatism, constitutes a serious barrier to growth. As the national unit becomes more effective,

group coalescence is promoted through the development of transport, postal systems, national currency, and many channels of wider communication. In Chapter 2 we noted the importance of group interaction (e.g., between farm and city) and regional integration to the transmission of knowledge.

(3) Third, as a growing sense of national interest is created, leadership groups are likely to initiate, and the populace accept, the formulation and articulation of national goals. Successful development requires that economic goals be accorded high priority and that they be pursued through concrete national activities.

(4) Fourth, important in the pursuit of development goals are public policies encouraging the society's expression of initiative and innovation. These policies are national in nature, carrying weight precisely because they infuse the members of particularistic groups and economic agents generally with new motivations to assume growth-related functions.

(5) Finally, national unity and the political consensus bred by nationalism are essential for the assumption of direct development roles by the public sector. In most less-developed countries public sector participation is essential for the provision of social overhead facilities to complement the new entrepreneurial roles undertaken by private sector agents.

In combination, egalitarianism and nationalism represent a unique combination of individual and collective roles in the transition to modern economic growth. The institutionalists provide a basis, whether explicit or implicit, for understanding the transition as a process of social change to accommodate improved economic performance through evolving an environment promoting both types of developmental roles. This position can hardly be disputed.

CRITICISM

The concept of group behavior and its impact upon economic performance is not alien to the economist's framework of analysis. The theory of oligopoly, for example, specifies rules of group behavior (e.g., price leadership, product competition, indirect collusion), depending on the nature of the group comprising an oligopolistic situation. From these behavioral assumptions, conclusions about economic consequences (e.g., price, market shares) can be deduced. Thus, the operational significance of groups is defined in terms of behavioral implications--without which the concept has little analytical usefulness.

Our major criticism of the group aspect in institutional analysis is the absence of a system of analysis appropriate for investigating the behavioral relations of specific groups and the economic functions related

to growth. In part, this deficiency is a matter of the heterogeneity of the composition of the concept of "particularistic groups." The wide variety of sub-groups embraced--religious, ethnic, kinship, and many others--prevent formulation of explicit rules of group behavior. The absence of such formulations forces the analysis into abstract general terms, such as "values," "expectations," "motivations," "roles," "status," etc. In part, the problem reflects the failure of the institutional school to formulate precisely the growth functions essential during the transition period. Together, these problems lead to vague and general concepts in much of the school's group analysis.

Lacking specific behavior relationships between social groups and economic functions, the approach suffers from lack of verifiability and refutability. The broad cultural forces adduced tend to be so vague in operational content that verification of specific behavior relationships is virtually impossible. In this unsatisfactory state of the art, resort has been made to an inductive approach in an attempt to draw the main lines of relationship between socio-cultural factors (in the broad sense) and economic growth. We refer here to the work of Irma Adelman and Cynthis T. Morris.[25] To portray the complexity of the problems with

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[25]Irma Adelman and Cynthia T. Morris, Society, Politics and Economic Development (Baltimore: The Johns Hopkins Press, 1967).

which these authors grapple, we reproduce their classification of characteristics associated with four major sets (termed Factor I, Factor II, Factor III, and Factor IV) of socio-cultural changes.

Factor I is interpreted "to represent the processes of change in attitudes and institutions associated with the breakdown of traditional social organization." The characteristics found to be most significant as indicators of Factor I are: "size of traditional sector, extent of dualism, degree of urbanization, character of basic social organization, size of the indigenous middle class, extent of social mobility, extent of literacy, extent of mass communication, degree of cultural homogeneity, degree of national integration, crude fertility rate, and degree of modernization of outlook."

Factor II is taken to represent political development, in the sense of progress from centralized authoritarian regimes to political forms more responsible to popular participation. The major indicators are: "strength of democratic institutions, freedom of political opposition and press, degree of competitiveness of political parties, predominant basis of the political party system, strength of the labor movement, political strength of the military, and degree of centralization of political power. These are all indicators that describe variations in political systems among countries."

Factor III represents declining power of traditional elites and rising strength of industrializing elites. Its major indicators are: "strength of the traditional elite, degree of leadership commitment to economic development, and degree of administrative efficiency." Factor IV (on which negligible association was obtained) relates the degree of social and political stability to per capita income.

Given the vagueness and generality of the institutional school's group analysis, the above efforts to identify and classify socio-political factors in terms of their development significance must be recognized as an advance. The merit lies in the explicit identification of "observable indicators." In terms of our earlier discussion, Factors I and II may be construed as comprising indicators concerned with the degree of egalitarianism while Factors III and IV relate to concrete measures of nationalism. The contribution lies in attempting to draw precisely those specific relationships between the multiplicity of socio-cultural forces and economic development functions lacking in the group aspect of institutional analysis. At the very least, this represents a basis for evolving a more satisfactory perspective in which to relate the two--as we mention below.

This attempt to enrich the operational content in the institutionalists' analytical framework demonstrates the basic weaknesses

of the vague, general approach as reviewed. Adelman and Morris point to this problem in justifying the use of their techniques, appropriate, they maintain, "in areas of investigation where adequate theoretical models cannot be developed."[26] Thus, the very necessity for the inductive techniques applied stems from the vagueness in the relationships drawn in the institutional school's "theory." The search for more explicit relationships in the Adelman-Morris study, however, reveals that this is a difficult, perhaps unpromising, task. The most elementary steps for establishing behavioral relationships between economic functions and socio-political factors remain elusive. First, among the many socio-political factors associated with economic behavior, there is little basis for establishing a causal order analysis, showing which factors causally determine others in the list. Second, although associations between socio-political factors and changing economic functions may be suggested, this inductive approach has no power to explain why these associations exist. In short, such an approach does not lead toward a positive theory of "economic development and cultural change."

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[26]Adelman and Morris, op. cit., p. 4.

The inductive approach is employed, therefore, to be suggestive rather than to verify hypotheses about behavioral relationships. It proceeds by assuming that all socio-political (and cultural) factors can be assigned numerical values. The technical problem is then to investigate how these factors (individually or as numbers of a subgroup) affect economic growth performance when the approach is applied to cross-section data from a large number of countries. We need not be concerned with the specifics of this quantitative analysis. We merely reproduce a key paragraph to illustrate the types of conclusions derived by the authors:

> "In general, our results reveal an intimate association between the pace of economic progress and noneconomic forces. Our findings also indicate that the nature and importance of the noneconomic 'determinants' of economic dynamism tend to vary systematically with the stage of a country's socioeconomic development. At the lowest level, characteristic of sub-Saharan Africa, social forces are typically the most important noneconomic influence upon economic activity, with political change, on the whole, exercising a negligible impact. By contrast, at the highest of the three levels studied, it is political forces that are crucial to economic performance, while social influences have little systematic effect. Economic forces are important throughout, but it is only at the highest relative level of development that they assume their full significance. In addition, the nature of the relevant economic forces tends to vary with the stage of development, with the more specialized economic institutions gaining full weight in explaining differences in rates of economic growth only

> at the highest level of socioeconomic development. Thus, the broad view of development that emerges is one in which social and political transformations and economic modernization interact in patterns that themselves change as countries progress to higher levels of socioeconomic development."[27]

Without passing judgment on the soundness of the analytical method applied or the validity of these conclusions, we wish to point to the merit in explicit introduction of a time dimension. This contribution is reflected in the distinctions made with reference to levels and stages of development. Our demurrer concerns the usefulness of cross-section analysis to investigate changes in cultural and economic interrelationships through time. More generally, we believe that the study of what interrelationships exist at particular points in time should be cast in a genuinely historical framework and defined in terms of specific operational content. In contrast to the general nature of the institutionalists' approach, therefore, we stress the importance of transitional analysis in a historical perspective, specifically addressed to the historical process of change as the society moves through stages from the colonial growth epoch to the epoch of modern economic growth. Despite its lack of a positive behavioral theory, the work by Adelman and Morris is important in pointing to the necessity for a historical framework to investigate these crucial growth issues.

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[27]Adelman and Morris, op. cit., pp. 6-7.

5. THE TRANSFORMATION OF ECONOMIC AGENTS

The analysis used by the institutional school to investigate the subjective and group aspects is essentially "comparative statics" in method. The personality and group characteristics associated with traditional society are analyzed and held to be inimical to development through repression of private and public innovative activities. Similarly, a changed set of personality and group characteristics, more conducive to rapid growth, is associated with the modern growth epoch. While there are some insightful hints about the mechanism of change from one set of environmental factors (i.e., the subjective and group aspects of economic agents) to another, formal investigation of the process of change is neglected in the works reviewed. We now turn to a type of institutionalist approach which focuses upon this key problem of the mechanism of change. The work of Albert Hirschman is taken as representative of this approach.[28]

The major strands in Hirschman's analysis of the mechanism of change may be presented in two logical steps. As a first step,

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[28]The essence of Hirschman's theory is presented in Albert O. Hirschman, The Strategy of Economic Development (New Haven: Yale University Press, 1958).

Hirschman identifies decision-making ability as the most critical bottleneck factor impeding modern economic growth. The second, and natural, step in the argument consists of inducement mechanisms through which decision-making ability can be acquired by economic agents. This second step may be thought of as dynamic process analysis, primarily concerned with the process of change itself; i.e., Hirschman's unbalanced growth thesis which stresses the necessity for a discontinuous process of social change. According to this thesis, human agents are induced to undertake decisions and actions favorable to development by the emergence of irresistible challenges posed by "pressures, tensions, and disequilibria." We briefly outline Hirschman's argument in these two steps before proceeding to a statement and evaluation of his unbalanced growth thesis as well as its unique policy implications.

DECISION-MAKING AND MODERN ECONOMIC GROWTH

Given the subjective and group aspects of economic agents as they are depicted in traditional societies, the absence of economic growth is traced directly to the agents' lack of the ability to reach and execute decisions required for the performance of the essential tasks for modern economic growth. To Hirschman these tasks are explicit, though numerous, including the acquisition of labor skills, the

mobilization and management of economic resources, the establishment of enterprises, the employment of disciplined labor forces and public decisions for providing infrastructure, such as roads, educational facilities, and hydroelectric projects. Thus, the requisite "economic decisions" for modern economic growth embrace activities of the society's both private and public sectors. In Hirschman's view, the ability to make these economic decisions is the scarcest of all scarce factors in less-developed countries. For this reason, the search for "inducement mechanisms" becomes Hirschman's central analytical focus:

> "We have identified the ability to make such decisions as the scarce resource which conditions all the other scarcities and difficulties in underdeveloped countries....We must call forth as much decision-making ability as possible by maximizing induced or routinized decision-making. Much of this book will therefore be concerned with the search for some reasonably effective inducement mechanisms."[29]

In short, development will not begin unless adequate pressure comes to be exerted to induce human agents to acquire and exercise decision-making ability, thus removing the bottleneck factor. It should be observed that identification of this decision-making ability as the most

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[29] Ibid., pp. 27-28.

critical operational precondition for growth implies the recognition of two sets of factors which operate upon the human agent. On the one hand, these agents must have the appropriate subjective attributes, while, on the other hand, certain environmental conditions must prevail to offer inducement or encouragement for decision-making. The institutionalists have warned, as we have seen in our review of the subjective aspect, that in traditional societies the predisposition for agents to make new economic decisions is likely to be unfavorable on subjective grounds. Hence, it is Hirschman's position that environmental conditions must offer strong inducements if decision-making capacity is to be strengthened.

A society's gradual acquisition of the ability to make growth-relevant decisions amounts to the development of human resources--or development of the quality of human agents. On this score, by singling out a particular type of human quality (i.e., decision-making) as most critical for growth, Hirschman places primary emphasis upon the creation of new classes of private entrepreneurs, as well as growth-conscious public agents. These particular qualities of economic agents are to be developed in rather unorthodox ways--not through formal education but rather through his inducement mechanisms. It is this latter recommendation which constitutes both Hirschman's particular process analysis and his unique policy orientation.

INDUCEMENT MECHANISMS FOR ECONOMIC AGENTS

Economic agents can be developed for the assumption of new functions only through education, as broadly interpreted. We have seen that the institutionalist school, through recognizing both formal and informal learning, stresses the significance of the informal varieties of education--learning by doing, imitation, and experimentation. Hirschman follows this tradition in conceiving of his inducement mechanisms as a broad learning process to develop the strategic qualities of human decision-making, thus emphasizing the informal aspects.

Hirschman's inducement mechanisms represent two quite different patterns in the learning process, distinguishing between (1) those which operate among development agents through private market forces and (2) those which operate among development agents through the public political process. Hirschman's well known linkage effects exemplify the first type of inducement mechanism. The backward-linkage effect operates through the input requirements of industries catering to final demands. As such final demand industries are set up, they will create profitable opportunities for domestic production of the

required intermediate goods.[30] These opportunities comprise the inducement for entrepreneurs to make decisions about entering a new activity. We see here a stress upon assured demand on favorable terms as a condition evoking a satisfactory decision-making response. This relieves the entrepreneur of the major problem of producing for an unknown and risky market.

The second type of inducement mechanism operates through the political process with the private entrepreneurs as either the initiator or target of pressures to induce development decisions. In the first case, the private entrepreneur undertakes production which soon confronts rising costs as the limited supply of infrastructure facilities (e.g., transport, power) is exhausted. This will result in private entrepreneurial pressures upon public agents to provide new and better infrastructure facilities, and these pressures will eventually build up to a point where a response occurs.[31]

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[30] In this emphasis, Hirschman has apparently been influenced by the planning approach, reviewed in another chapter.

[31] Hirschman notes that infant industry protection may be an oblique device to meet these pressures upon the public sector. The higher costs of production, associated with deficient social overhead facilities, are then compensated for by artificially high domestic prices for the new output.

In the second case of private-public agent inducement, the government agent plays a more dynamic innovating role. Infrastructure investment may be undertaken to induce a private response by providing new production opportunities or reducing production costs. New highways into the interior to provide access to natural resources or new irrigation facilities are examples of this type of inducement mechanism operated by the public sector.

To sum up, inducing agents to become involved in development activities requires either an adequate positive inducement (e.g., the anticipation of profits) or the posing of an intolerable problem (e.g., traffic jams caused by a narrow bridge). We construe Hirschman's inducement mechanisms, whether operating in the private or public sector, to constitute "learning by doing" devices. Abilities to exercise the crucial types of decision-making can be strengthened only through actual practice as economic agents begin participating in the decisions comprising new economic functions.

THE UNBALANCED GROWTH THESIS

Hirschman's inducement mechanisms concept led him to a particular view of the natural process of economic development as one characterized by discontinuous change or unbalanced growth. This unbalanced characteristic of natural growth is reflected in the pattern of development in the domestic economy as well as international trade. This naturally discontinuous aspect of development patterns is traced to the intrinsically step-by-step character of the social learning process.

In the domestic economy, following his backward linkage mechanism, Hirschman views industrialization as beginning with industries producing for final demand--where a domestic market already exists. This, in turn, creates a domestic market for intermediate goods. This provides an explanation of the observed phenomenon of "last industries first" in less-developed countries. Thus, industrialization is a process which "works its way backward from the 'final touches' stage to domestic production of intermediate, and finally to that of basic industrial, materials."[32]

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[32] Ibid., p. 112.

Imports serve as an inducement mechanism important in guiding the entrepreneur in selecting the original final demand industries to begin the sequence. They demonstrate in a palpable manner that a market exists. "Imports thus reconnoiter and map out the country's demand; they remove uncertainty and reduce selling costs at the same time, thereby bringing perceptibly closer the point at which domestic production can economically be started."[33] Similar to Hagen, Hirschman envisages the process beginning with the industrial sector and leading to eventual transmission of the development stimuli to agriculture. Along this developmental path, entrepreneurship gradually becomes capable of assuming more complex tasks, and both managers and labor acquire the skills and attitudes required for efficient performance in the use of new productive methods.

Hirschman maintains that sequencing between private initiative and a public response is recommended on grounds of both limited resources and the maximization of induced decision-making. In some cases "building ahead of demand" may be preferable for public infrastructure investment; in others, "development via shortages."

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[33] Ibid., p. 121.

Unbalancing is necessary precisely because decision-making ability is the scarcest factor, thus enabling the country to overcome this deficiency one step at a time. Hirschman also believes that an unbalanced growth path is supported by sound educational psychology. The learning process required for the introduction of innovations is most effective when done in steps which both allow a gradual accumulation of skills and exert pressures for the next step in the sequence.

EVALUATION

As presented above, two strains stand out in Hirschman's approach, one emphasizing a positive educational philosophy relevant to growth and the other an implied thesis on the discontinuous nature of the transition process. These two components are most conveniently separated for purposes of evaluation.

In regard to Hirschman's educational philosophy, we consider this to the first serious attempt to build a framework to integrate education and human agent development. In narrowing the concept of education to focus specifically on the ability to reach effective decisions--as the critical bottleneck factor--Hirschman clearly singles out the most important contribution of education to growth. Moreover, Hirschman's position that participatory learning to enhance decision-making

capabilities is the key strategy and his perception of the gradualistic nature of this learning-by-doing process are unassailable. The idea of transformation of human agents required to create the new entrepreneurial class from the human resources of traditional society lies at the very heart of transitional growth. The warning that students of contemporary growth phenomena neglect this crucial issue at the peril of being incomplete and partial in their scope should be heeded.

Moreover, we agree that sequencing of development activities has significant implications for the development of human agents. Although Hirschman does not explicitly make the point, this step-by-step sequence allows a gradual acquisition by entrepreneurs of increasingly sophisticated and complex production and marketing processes. It is this implicit view which apparently leads Hirschman to reject vehemently the balanced growth approach. "For this is the major bone I have to pick with the balanced growth theory," writes Hirschman, "its application requires huge amounts of precisely those abilities which we have identified as likely to be in very limited supply in underdeveloped countries."[34]

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[34] Ibid., p. 53.

This leads us to the second issue--whether the transition process involves balanced or unbalanced growth--an issue which has clouded the development field with extensive controversies extending throughout much of the post-World War II period. Unfortunate lines of argumentation have been drawn along polarized positions espoused between adherents of balanced and unbalanced growth. In essence, both are addressed to the same basic problem; i.e., what pattern of environmental change is most conducive to increasing entrepreneurial activity. On this problem, the balanced growth and unbalanced growth antagonists reach diametrically opposed conclusions. On the one hand, the balanced growth theorists[35] find that the transition must be one in which a "big push" occurs, with output and income simultaneously expanding in all sectors throughout the economy. On the other hand, Hirschman's unbalanced growth thesis (as we have seen) leads to a very strong emphasis upon a zigzag pattern of sectoral expansion.

The balanced growth approach emphasizes the mutually stimulating nature of widespread industrial expansion upon entrepreneurship. Balanced growth is the necessary condition for the

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[35]Exemplified by Paul Rosenstein-Rodan and Ragnar Nurkse.

creation of these stimuli to entrepreneurial activity. The argument rests upon the external economies offered by expansion of individual industries--markets to absorb output, sources of cheap raw materials, skilled labor, innovational activities--all enhancing the prospects of inducing expansion in other industries. In a mature modern growth economy, each industry automatically assumes simultaneous expansion of other industries as a matter of routine growth and plans its own expansion on the basis of this expectation. In less-developed countries, by contrast, these expectations of automatic growth of other sectors cannot be taken for granted precisely because entrepreneurs lack the experience of routine growth. This basic difference in the entrepreneurial perspective gives the balanced growth thesis its appeal. In less-developed countries unless all industries expand simultaneously, providing palpable evidence of the "external economies" to each other, entrepreneurs will fail to undertake the development of any industry because of the weakness of investment incentives. Thus, at the heart of the balanced growth doctrine lies the absence of automaticity in the general entrepreneurial inclination to anticipate economy-wide expansion and to "discount" the anticipated mutually stimulating effects of such expansion by internalizing external economies.

This interpretation of the balanced growth adherents serves to emphasize their interest in the same basic aspect of growth as the unbalanced growth approach. Both view human resources (entrepreneurship) as a serious developmental bottleneck and both are addressed to the fundamental issue of what type of expansion process is most conducive to calling forth positive entrepreneurial decisions. Though both focus upon inducements to decision-making, their conclusions are diametrically opposed. These different conclusions stem from the fact that the unbalanced growth adherents address themselves to the problem of the development and augmentation of entrepreneurial capacity while the balanced growth theorists are concerned with more efficient use of the society's existing supply of entrepreneurial resources. This difference in orientation leads to a difference in time perspective in their respective analytical frameworks.

While Hirschman concentrates upon enhancing decision-making capacities for entrepreneurship in a step-by-step learning process, the balanced growth advocates are concerned with the problem of stimulating entrepreneurs' decisions by providing investment incentives. Thus, in the latter, we find no formal attention to the problem of the supply of

entrepreneurship and increasing entrepreneurial capacities.[36] Hence, the balanced growth analysis is naturally static because it ignores this problem of development of human resources, while the unbalanced growth thesis is necessarily dynamic precisely because it focusses upon the learning process to increase these capacities as a gradualistic process.

Recognition of this difference in the time dimensions in their analytical methods, however, serves to demonstrate further the basic affinity between the two approaches. As entrepreneurial capacities are strengthened by the unbalanced growth strategy, this very process has leverage effects upon growth potentialities in other sectors. The expansion of output and income in one sector in response to induced decision-making naturally triggers activities in other sectors in a chain-reaction fashion. If the time lag in this chain-reaction sequence is not great, the resulting growth process may appear, ex post, as an almost simultaneous process of interaction. This retrospective view has the advantage of highlighting the mutual interaction aspects of an economy's achievement of growth momentum, the very phenomenon stressed by the balanced growth theorists. The controversy between the two schools is more apparent than real as they are really concerned with different aspects of the same phenomenon.

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[36]This leaves the balanced growth adherents in a position of being unable to defend themselves against Hirschman's charge that their policy recommendation requires huge amounts of precisely those abilities in scarce supply.

6. EVALUATION: THE CONTRIBUTION OF THE INSTITUTIONAL APPROACH

ANALYTICAL FOCUS

In our review of the historical approach in Chapter 2, we observed that the concept of growth epochs is fundamental to a historical perspective of economic growth. In a first effort to identify the characteristics of particular growth epochs, we described each epoch in terms of several background factors associated with the nature of production, social organization, and cultural factors. In total these features were construed to portray the "institutional milieu" of the growth epoch. This area of the institutional milieu, especially broad generalizations concerning social organization and cultural factors, constitutes the general subject matter of the institutional school. These characteristics which remain as rather vague generalizations in the historical approach are given more detailed and analytical treatment in the works of the institutionalists.

Accepting the problem of the society's organizational efficiency as a starting point, the institutional approach is formally concerned with analysis of economic agents. In the first section of this chapter we have shown that the concept of agents, as an analytical focus, must be sharply differentiated from the quantitative aspects of production;

i.e., the stock and flow concepts emphasized in traditional economic analysis. Efficiency of organization is determined by the quality of human agents, and the operational significance of agents in growth analysis lies precisely in their organizational efficiency. More specifically, this aspect of growth refers to the effectiveness of agents in reaching and executing growth-related decisions in performing economic functions. This includes the capacity of agents to institutionalize a decision-making process for growth through organizational innovations in creating appropriate functionally specific groups. In the context of economic growth, therefore, the concepts of economic agents and organizational efficiency are so intimately related they are virtually conterminous. The analytical focus of the institutional approach consists of these interrelated concepts, thus giving concrete meaning and operational content to the broad "cultural factors" related to growth.

In the execution of organizational and decision-making tasks, economic agents are constrained by their subjective or personality (psychological) attributes. To study properly the quality of the agents' abilities with regard to these tasks, two lines of inquiry are required. On the one hand, the nature of the tasks (economic functions) to be performed must be explicitly investigated. On the other hand, the agent's psychological attributes and his environmental conditions (both of which

affect the performance of these tasks) must also be analyzed. The institutionalists have almost exclusively pursued the second line of inquiry. That is to say, they have tended to concentrate upon the process of the agent's personality formation from the viewpoint of the total learning experience to which he, as an individual agent, is exposed (e.g., Hagen) or the agent's social environment, defined in terms of the society's group structure. The process of changing the quality of agents, essentially the creation of an entrepreneurial class from the growth viewpoint, is considered to be a gradual step-by-step process of informal education, involving exercise of the very decision-making activity which must be acquired.

The institutionalist approach, therefore, views economic development fundamentally as the pervasive qualitative development of human resources, implicitly considering the improvement of material resources as more superficial or, indeed, symptomatic of human development. The learning process, broadly conceived and extending well beyond formal education, is naturally given primary emphasis in their analysis, as well as in their policy conclusions. We reiterate that there is considerable realism and value in this philosophy of economic development which places the human being and his social environment at the center of the stage.

DIFFICULTY OF EVALUATION

The evaluation of the approach just summarized poses difficulties not confronted in the case of the other approaches to economic growth--historical, planning, and theoretical. Unlike the other approaches, the institutional approach embraces social, cultural, and political phenomena, covering an area of knowledge beyond the scope of any particular discipline, whether economics, psychology, sociology, anthropology, or political science. Precisely because of this inter-disciplinary quality, the institutionalists' conceptual apparatus employed remains rather vague, lacking the precision and rigor characteristic of the analytical methods used by economics and, for that matter, several other social sciences. In our review of the group aspect (in Section 4 of this chapter), for example, we already cited the problems of the vagueness and non-operational quality of the abstract generalizations used. We have also noted that it is extremely difficult to derive regular and generally valid behavioral patterns, appropriate for operationally useful analysis, from inductive scrutiny of a large array of cultural indicators. Thus, we confront the problem of evaluating what amounts to an analytically primitive and imprecise social science.

We suspect that this difficulty notwithstanding, there is a more fundamental obstacle to appreciating the significance of the institutional school's approach. This second problem--which is also relevant to the three other approaches (historical, planning, and theoretical)--is one of relating the several approaches in a systematic way. This problem is most critical, however, in the case of the institutional approach since it deals with a rather special group of concepts quite alien to the more familiar economic variables (e.g., production, consumption, saving, investment, and population) which are standard tools in all the other approaches. We note also that these standard tools are measureable economic concepts, unlike the more nebulous and immensurable concepts characteristic of institutional analysis. It is for these reasons that economists have traditionally doubted that the institutional approach had much to offer in the way of contributions to the economics of growth.

To appreciate the unique contribution of the institutional approach adequately, therefore, we believe that we must improvise a framework of thinking capable of relating this approach to those more traditionally employed in economics. Such a framework should be capable of relating the analytical focuses of the variable distinct approaches to economic growth. In other words, we believe that the approach of the institutional

school cannot be adequately evaluated, or its contribution fully appreciated, within the closed system of its own focus. This task must be undertaken within a system capable of handling the interrelationships, particularly to evaluate complementarity between the institutional approach and the others. We present a "matrix of growth knowledge" for this purpose before proceeding to its application to evaluate the institutional approach.

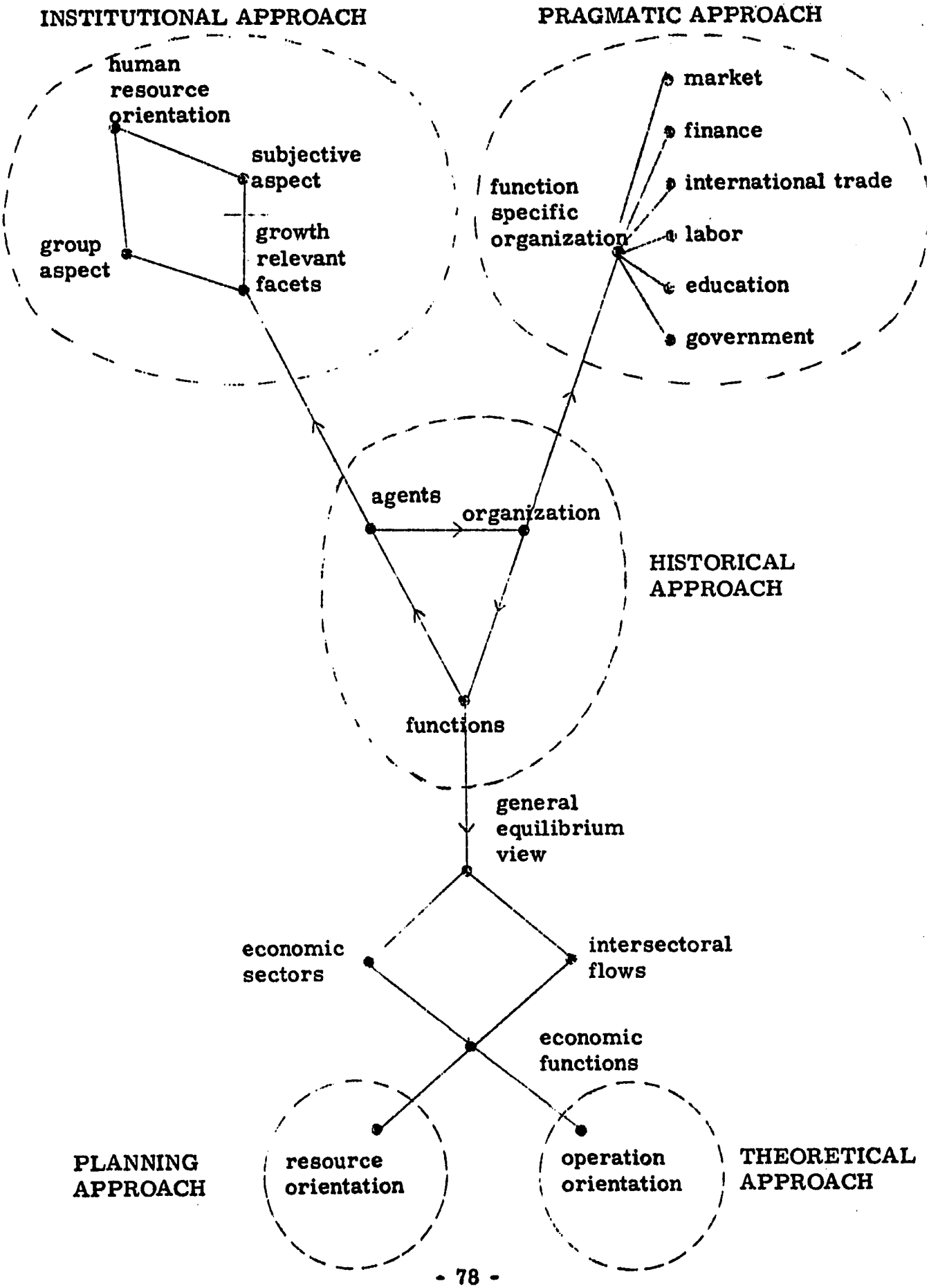
THE MATRIX OF GROWTH KNOWLEDGE

In the introductory chapter we have classified the intellectual disciplines which are concerned with furthering knowledge about the growth of contemporary less-developed countries into four distinct areas or approaches: historical, planning, institutional, and theoretical. To this listing we may add the pragmatic approach, an area of knowledge not so much concerned with understanding the growth process but with applying knowledge to the more operational policy problems of promoting rapid growth and development. This approach includes a large variety of practitioners who have emerged in the postwar period--politicians, planners, economic officials, and, of course, foreign advisors. A characteristic of the pragmatic approach is that knowledge is construed to be synonymous with concrete solutions to specific operational problems. In fact, as development economics evolved after World War II, much of the

initial literature was concerned with concrete policy and operational issues; e.g., land reform, import substitution, export promotion, allocation of investment, industrial incentives, and five-year plans. In terms of Pigou's distinction (employed in Chapter 4), the pragmatic approach is exclusively fruit-bearing, or applied, contrasting with all the other approaches which have at least some significant light-bearing component. For a complete but synoptic view of the matrix of growth knowledge these five approaches must be related. This is done with the aid of Diagram I. Our total knowledge is pictured as a tree of growth knowledge. The five areas of knowledge we have now distinguished--historical, institutional, planning, theoretical, and pragmatic--are represented by the five dotted circles, covering all the relevant "branches" in the tree (or matrix) of our total knowledge about growth of less-developed countries.

For convenience of discussion we begin with the historical approach, surveyed in Chapter 2. Within the dotted circle labelled "historical approach" are shown the three central aspects of growth stressed in the historical framework, economic functions, organization, and economic agents. The lines which connect them show their inter-relationship as the three central themes in this approach. In this triad, agents perform the growth-related functions while, in turn, the discharge

DIAGRAM I: MATRIX OF GROWTH KNOWLEDGE



of these functions serves the interests of agents as growth occurs. The efficiency of the agents' performance is mainly a matter of their ability to form functionally specific organizations to perform the economic functions through collective (group) action. Thus, agents create the organizations required for performance of the functions.

In our review of the historical approach we pointed to its holistic quality, illustrated in our discussion of several growth epochs (mercantile-agrarianism, colonialism, and modern economic growth). It was shown that it is useful to view the operation of any growth epoch in terms of all three aspects emphasized in the historical framework. Of special interest to us is the particular vision of economic growth offered by the historical perspective. The growth process is conceived as process of transition from one growth epoch to another, each transition involving the key triad of economic functions, organization, and agent. In the transition upon which our study concentrates--from colonialism to modern economic growth--the interrelated change of these three key aspects is central to application of the holistic view offered by the historical approach.

This very holistic attribute of the historical approach limits the depth to which these critical ingredients of growth can be studied. Essentially, we are offered a broad canvas, outlining the entire process, while the details must be sketched in by other disciplines. Hence, we

see that the other approaches to growth are complementary both within the historical approach and with respect to each other. They explore and treat intensively the special aspects of growth identified within the holistic perspective of the historical approach.

In Diagram I these interrelationships are shown by the fact that each of the other approaches covers an area of knowledge which extends and elaborates the three key aspects identified in the historical approach. The institutional approach, for example, covers two avenues of relationship (two lines) with the agent aspect of the historical approach. This serves to emphasize that the institutional approach focusses upon two distinct facets of the agent--one subjective and the other group-related. These are precisely the two major facets of the agent discussed in our review. Within the institutional approach circle we show that these two facets lead to the institutionalists' growth philosophy which emphasizes development of the quality of human resources.

Diagram I shows the relationship between the historical school and the pragmatic approach by a series of lines, emanating from the organization aspect of the historical framework. This emphasizes that the pragmatic approach is concerned with a host of policy issues related to the formation of various organizations, including markets, financial institutions, labor, education, government, or institutions related to

international trade and finance. In any society in the process of development, concrete policy issues will always involve these growth-related organizations to improve the efficiency of agents in harnessing, regulating, and coordinating the economy to promote growth. Hence, the pragmatic approach naturally focusses upon issues associated with these organizations.

The functional aspect of the historical approach is shown in Diagram I as leading indirectly to two other approaches, the planning approach and the theoretical approach. The intermediate nexus is employed to show certain important components of economic functions. We see, first, that a functional view of the economy involves a general equilibrium framework, covering the whole economy. Within this framework we note two separate components, the sectors and the flows (output, resources, finance, knowledge) among these sectors. These two components meet in a vertex which shows that growth-related functions are definable in terms of intersectoral relationships. From this vertex, the focus of the planning and theoretical approaches can be identified. The planning approach is concerned with resource-oriented analysis, while the theoretical approach is concerned with operationally-oriented analysis (a distinction drawn in detail in Chapter 5). With this perspective provided by the matrix of growth knowledge, we are now ready to proceed to an evaluation of the institutional approach.

ECONOMIC FUNCTIONS AND THE INSTITUTIONAL APPROACH

We have recognized that the institutional school has made a major contribution by reviving interest in the development of human agents as a critical aspect of economic growth. This recognition should not, however, lead us to the naive conclusion that this approach has become a major vehicle to expand our knowledge of this very special growth process. In fact, the institutionalists' contributions to our understanding of the relationship between broad cultural forces--as they operate upon the human agent--and the transition to modern growth have been modest. The question we consider here is why so promising a focus upon a most essential aspect of growth has yielded so little in the way of light-bearing analysis.

In large part, we believe, the answer to this question lies in the failure of the institutional school to establish operational relationships between their work and traditional economics. We have seen that, for developmental purposes, improving the quality of human agents is manifested in more efficient forms of organization. The natural question which follows is what are, indeed, the essential economic functions which agents must perform through more efficient organizations during the transition process. The basic weakness of the institutional approach is its failure to raise this issue of the totality of economic functions to be

performed in the transitional growth process. Superficially, this important area of knowledge has been taken for granted (i.e., assumed to be obvious); while, in fact, most institutionalists have operated with rather vague notions of these critical growth functions.

In our presentation of the matrix of growth knowledge in Diagram I, we see that the analyses of growth-related economic functions are traditionally reserved as prerogatives of the planning and theoretical approaches. Although a fine distinction is made between the two in the next chapter, they share certain common features. As noted above, both operate with a general equilibrium view of the economy, embracing, in outline form, all quantifiable economic activities which are relevant to development of the particular economy. The feasibility of this synoptic view has been greatly enhanced by the development of national income accounting, which has undergone several decades of experimentation and improvement in economically advanced countries. This view offers a macroscopic picture of the economy, identifying large sectors whose interrelationship can be systematically investigated, employing both inductive evidence and analysis. The purpose of these approaches is to analyze the totality of essential economic functions (e.g., production, investment, saving, allocation of resources, innovation, structural change, etc.) which must be performed during the growth process. The

synoptic framework allows investigation of these functions within a consistent framework so that their mutual relationships may be emphasized. From such investigation, an attempt may be made to portray the changing nature of the essential economic functions during the transition to modern economic growth.

The absence of this general equilibrium perspective to highlight changing economic functions is precisely why the institutional school has failed to make its work genuinely relevant to understanding the transitional growth process. Granted that improvement in the quality of economic agents (e.g., entrepreneurship) is of prime importance, this can only be analyzed in terms of the concrete functions which must be performed. These functions are performed by agents, and greater efficiency is a matter of agents initiating new, more effective, forms of organization. As the nature and content of the essential economic functions change in the transition process, the prerequisites for effective entrepreneurship and the learning processes associated with their creation also change. By neglecting the area of economic functions, therefore, the human resources approach to development remains stalled at a general and elementary level.

To correct this major weakness, therefore, a more complete marriage between the functional and institutional approaches is needed.

To complement fully the functional analysis of the growth process, the institutional approach must begin with a thorough understanding of the way in which the critical economic functions change during the transition process. With a grasp of the specific nature of these functional changes, study of the economic agents who must perform these changing functions can become truly productive. The relationships between agents and functions could then be drawn in terms of specific and precise behavioral relationships rather than in terms of the vague, general relationships we have found in the work of the institutional school. With precise relationships formulated, the crucial problem of the sequencing of changes in both economic functions and agents could be explored. In fact, unless development of human agents can be meaningfully related to the sequential analysis of economic functions during the transition process, we see little hope of increasing the operational utility of the institutional approach.

We see from Diagram I that the specific policy issues confronting the pragmatic school are basically matters of promotion and regulation of growth-related organizations, whether markets, government, foreign exchange systems, financial institutions, labor unions, or schools, under the supervision of the government. Lacking a basis for the extension of their analytical work, the institutionalists frequently find themselves joining the pragmatists in offering development policy advice

(e.g., Hirschman) on these issues, rather than establishing more positive behavioral and theoretical foundations upon which development strategy and policy decisions should rest. In their zeal to be "useful," therefore, institutionalists fall into the error of "policy without theory," or, alternatively stated, of fruit-bearing activities without sufficient light-bearing. In this respect, we observe considerable affinity between the institutional school and planners.

The basic purpose of a society's organizational change is to relate economic agents more effectively to specific growth functions. The emergence of new, more efficient, organizations is merely a symptom of the underlying fact that economic agents are learning to make and execute decisions apropos the critical growth functions. Analysis of growth functions and human agents, therefore, is the very heart of understanding the transition; organizational methods are merely formalization of these underlying changes. Sound policy advice concerning such institution-building clearly requires prior understanding of the evolution of economic functions and the qualitative transformation of human agents which must occur simultaneously.

RELEVANCE TO OUR WORK

We conclude by reiterating certain points made in the above evaluation to highlight the relevance of the institutional approach to our own work. (1) First, this approach emphasizes a crucial aspect of transitional growth in focussing upon the quality of human resources and the broad, largely informal, learning process required for their development. (2) Analysis of the development of human resources for growth functions within the closed model of the institutional approach implies serious limitations. Greater contributions to our understanding of the development process can be offered by relating this approach to other growth approaches. Especially important in this regard is the incorporation of the functional framework into institutional analysis. For it is the functional approach which offers a broad, synoptic perspective, providing overall consistency among the many facets of growth as well as a system to investigate the interrelationships among the many essential economic functions required for a transition to modern economic growth. (3) Third, of particular importance for more fruitful institutional analysis is the need for proceeding beyond the

level of vague generalities by formulating specific behavioral relationships between the development of human agents and the evolution of economic functions. This implies the related need for a time dimension in the analysis to understand the evolutionary sequences implicit in the notion of a transition. In the remainder of this study, these general principles--distilled from evaluation of the institutional approach--will be applied to our investigation of the transitional growth process in contemporary open, dualistic economies.